--16. (New) An electrically drivable light modulator comprising:

at least two liquid crystal layers for enclosing between at least two transparent plates having a surface anisotropy for orienting molecules of the at least two liquid crystal layers and having electrodes for generating an electric field in the at least two liquid crystal layers; wherein:

the at least two liquid crystal layers include helical, smectic ferroelectric liquid crystals, whose fast optical axes and slow optical axes, respectively, are disposed in parallel with a respective one of the at least two liquid crystal layers, and whose average optical anisotropy is influenceable by an action of the electric field;

the at least two liquid crystal layers are situated one behind another for being in a path of rays of a light beam to be modulated; and

directions of the fast optical axes and slow optical axes, respectively, of the at least two liquid crystal layers are rotated relative to one another so that a polarization upstream of the light beam is the same as a polarization downstream of the light beam.

17. (New) The electrically drivable light modulator of claim 16, wherein the at least two liquid crystal layers include a first layer and a second layer and are situated one behind another so that:

a first slow optical axis of the first layer is normal to a second slow optical axis of the second layer;

a first fast optical axis of the first layer is normal to a second fast optical axis of the second layer; and

an orientation of the first slow optical axis and the first fast optical axis of the first layer and of the second slow optical axis and the second fast optical axis of the second layer in relation to one another is retained at all times when a control voltage is applied and varied.

18. (New) The electrically drivable light modulator of claim 16, wherein the at least two liquid crystal layers are enclosed between the at least two transparent plates, and a control voltage is applied to the electrodes for generating the electric field.

19. (New) The electrically drivable light modulator of claim 16, wherein the at least two transparent plates include a plurality of transparent plates, and each of the at least two liquid

2

crystal layers is enclosed between two of the plurality of transparent plates, a control voltage being appliable to the electrodes for generating a respective electric field in each case.

20. (New) The electrically drivable light modulator of claim 16, wherein the at least two liquid crystal layers exhibit a same average refractive index, have a same thickness and are able to receive synchronously a same control voltage.

21. (New) The electrically drivable light modulator of claim 19, wherein a ratio of control voltages of the electrodes is adjustable for compensating for a change in the polarization of a light beam passing through the at least two liquid crystal layers.

22. (New) The electrically drivable light modulator of claim 16, wherein control voltages for each of the at least two liquid crystal layers is adjustable for compensating for a manufacturing tolerance.

23. (New) The electrically drivable light modulator of claim 16, wherein the at least two liquid crystal layers include a smectic liquid crystal mixture FLC-472/FLC-247.

24. (New) The electrically drivable light modulator of claim 16, wherein the at least two liquid crystal layers include 60 % by weight of phenyl pyrimidine and 40 % by weight of an achiral, smectic A matrix having a chiral doping on a basis of a disubstituted ether of bis-terphenyl dicarboxylic acid.

25. (New) The electrically drivable light modulator of claim 16, wherein the at least two liquid crystal layers include 60 % by weight of phenyl pyrimidine and 40 % by weight of an achiral, smectic C matrix having a chiral doping on a basis of a disubstituted ether of bis-terphenyl dicarboxylic acid.

26. (New) An adaptive optical device comprising:

a field of light modulators being configured in a raster-type array and being for situating in a path of rays, each of the light modulators being drivable for compensating for unsharpness occurring on a point-by-point basis of an image to be processed, and each of the light modulators including:

3

at least two liquid crystal layers for enclosing between at least two transparent plates having a surface anisotropy for orienting molecules of the at least two liquid crystal layers and having electrodes for generating an electric field in the at least two liquid crystal layers, wherein:

the at least two liquid crystal layers include helical, smectic ferroelectric liquid crystals, whose fast optical axes and slow optical axes, respectively, are disposed in parallel with a respective one of the at least two liquid crystal layers, and whose average optical anisotropy is influenceable by an action of the electric field;

the at least two liquid crystal layers are situated one behind another for being in a path of rays of a light beam to be modulated; and

directions of the fast optical axes and slow optical axes, respectively, of the at least two liquid crystal layers are rotated relative to one another so that a polarization upstream of the light beam is the same as a polarization downstream of the light beam.

27. (New) The adaptive optical device of claim 26, further comprising a common substrate for mounting the field of light modulators.

28. (New) The adaptive optical device of claim 26, wherein a digital camera is arranged upstream from an image sensor for picking up and feeding an image to an image-analysis device for determining a point-for-point unsharpness in the image, and the adaptive optical device is drivable by the image-analysis device for compensating for the point-for-point unsharpness.

29. (New) The adaptive optical device of claim 26, wherein an image observable by an optical observational device is feedable in parallel to an image-analysis device for determining a point-for-point unsharpness in the image, and the adaptive optical device is drivable by the image-analysis device for compensating for the point-for-point unsharpness.

30. (New) The adaptive optical device of claim 26, wherein an image observable by a camera is feedable to an image-analysis device for determining a point-for-point unsharpness

4